

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

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:
EQUAL EMPLOYMENT OPPORTUNITY
COMMISSION, :
:
Plaintiff, : 07-CV-8383 (LAP/HP)
:
v. : ECF ACTION
:
BLOOMBERG L.P., :
:
Defendant. :

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:
JILL PATRICOT, TANYS LANCASTER,
JANET LOURES, MONICA PRESTIA, :
MARINA KUSHNIR and MARIA :
MANDALAKIS, :
:
Plaintiff-Intervenors, :
:
v. :
:
BLOOMBERG L.P., :
:
Defendant. :

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**MEMORANDUM OF LAW IN SUPPORT OF DEFENDANT'S MOTION
TO EXCLUDE THE REPORTS AND TESTIMONY OF DR. LOUIS LANIER**

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The analyses performed by the EEOC's proffered statistical expert, Dr. Louis Lanier, are neither relevant nor reliable, and therefore must be excluded from evidence here.

1. Dr. Lanier's analyses are irrelevant for two reasons. First, they are irrelevant to proving EEOC's Title VII and Pregnancy Discrimination Act ("PDA") claim because they fail to compare class members to similarly situated Bloomberg L.P. employees. EEOC must show that class members were treated differently than other employees who were "similar in their ability or inability to work." Because EEOC claims that class members were treated differently after taking maternity leave, it must establish that they were treated differently from employees who took leave for other reasons. Dr. Lanier's analyses fail to make this comparison; they compare class members to all other Bloomberg employees, the vast majority of whom took no leave. When class members are compared to employees who took leaves of similar length, Dr. Lanier's models show no statistically significant differences in compensation between class members and non-class members. Dr. Lanier's conclusions are irrelevant to establishing EEOC's PDA claim, and should be excluded. His damages calculations should be excluded for the same reason.

Second, Dr. Lanier's analysis is irrelevant to EEOC's allegations that class members had their pay cut after returning from maternity leave. His analysis did not show any pay decreases.

2. Dr. Lanier's analyses are unreliable. He grossly misinterpreted his final analysis, concluding that it showed a class disparity in pay growth "on average" when, as he admitted, it shows the opposite: "that overall class members [] in . . . a majority of leave conditions did better than non-class members or had better predicted [pay] outcomes." Only by departing from established statistical principles can Dr. Lanier interpret his results to support EEOC's claims. He also commits numerous errors that cast doubt on the reliability of his analyses. For these reasons, those analyses should be excluded.

BACKGROUND

1. EEOC alleges that Bloomberg “engaged in a pattern or practice of unlawful discrimination against non-clerical female employees . . . based on their sex and pregnancy by decreasing their pay, demoting them, diminishing their job duties and excluding them from other employment opportunities, when they became pregnant and when they returned from maternity leave” Dreiband Decl. Ex. A at 1-2 (Second Am. Compl.); *see also id.* ¶¶ 7(a)-(d) (discrimination alleged “once [class members] announced their pregnancy and once they returned to work after taking maternity leave.”).¹ The alleged class period is February 1, 2002 through the present. *Id.* at 1-2.

2. To assist EEOC’s efforts to satisfy its burden to prove that Bloomberg “award[ed] [class members] less total intended compensation than the actual value of their prior year’s compensation once they announced their pregnancy and once they returned to work after taking maternity leave” (Ex. A ¶ 7(a)), EEOC proffers the analyses, opinions, and testimony of Dr. Louis Lanier. Dr. Lanier also attempted to analyze data related to EEOC’s claim that Bloomberg discriminated against class members by “demoting them . . . ,” *id.* ¶ 7(b), but did not reach any conclusions to support this allegation. *See* Dreiband Decl. Ex. B ¶ 52 (Lanier Rep.). Dr. Lanier did not analyze the other bases for discrimination that EEOC’s complaint alleges. *See id.* ¶ 5.

3. Total employee compensation at Bloomberg is paid in two parts: base pay, and incentive compensation called an Equity Equivalency Certificate (“EEC”) grant. Ex. B ¶ 20. During the period that Dr. Lanier studied (February 2002 – December 2008), Bloomberg made pay determinations once every twelve months on the employee’s anniversary date. *Id.*; Dreiband Decl. Ex. C at 135-36 (Lanier Dep.).

¹ Defendant’s Motion to Exclude the Expert Reports and Testimony of Dr. Louis Lanier is supported by the Declaration of Eric S. Dreiband, Esq. and accompanying exhibits.

4. Dr. Lanier opines in his initial report that (a) “[c]lass members incurred statistically significant lower base pay rate changes than similarly situated non-class members;” (b) “[c]lass members were given statistically significant smaller intended EEC grants than similarly situated non-class members;” and (c) “the average performance ratings for class members drops by a statistically significant 0.1 margin between the ‘before’ and ‘after’ periods of pregnancy and/or maternity leave.” Ex. B ¶¶ 52(a), (b), (e). Dr. Lanier also calculated damages based on the results of his statistical analyses. *Id.* ¶¶ 45-51.

5. Dr. Lanier based his conclusions on a statistical regression analysis. Regression analyses “explor[e] the relationships between variables while controlling for the influences of . . . outside factors.” Ex. B ¶ 11. These analyses are performed to ensure that class members are compared to “other similarly-situated employees.” *Id.* Regression analyses report the results and the number of “standard deviations,” or statistical significance, of those results. Standard deviations of two or greater are considered statistically significant, representing a five percent or less chance that the reported results occurred randomly. *Id.* ¶ 27, n.3.²

6. Dr. Lanier defined the class as maternity leave takers, and compared the class to all Bloomberg employees who did not take maternity leave during the class period. Ex. C at 160-62. According to Dr. Lanier, 82% of the data in the database related to those “employees who took no leave.” Dreiband Decl. Ex. D ¶ 15 (Lanier Rebuttal Rep.) (by excluding from his analysis “all employees who took no leave,” Bloomberg’s expert ignored 82% of the data in the database).

7. Dr. Lanier’s initial regression analysis controlled for company tenure, pre-

² Courts have adopted this standard for statistical significance. *See Hazelwood Sch. Dist. v. United States*, 433 U.S. 299, 308 n.14 (1977) (difference of two or three standard deviations accepted as statistically significant).

Bloomberg experience, business unit, base pay rate, and EEC grant. Ex. B ¶ 25. It showed that the class's base pay growth—that is, the percentage increase in base pay for each scheduled pay change—was 3.73% lower than the increase received by non-class members, and that class members received \$1,514 less in expected bonus than non-class members. *Id.*, Tables 1&2, ¶¶ 27, 31. Both findings were statistically significant. *Id.* He created two alternate models that also controlled for job code and job tenure, and most recent performance rating, respectively. Controlling for job code and job tenure resulted in the same differences in base pay growth, but reduced the EEC grant difference to \$931; again, both findings were statistically significant. *Id.* Controlling for the most recent performance rating eliminated any statistically significant difference in base pay or EEC grant amount as between class members and non-class members. *Id.*, Tables 1&2, ¶¶ 28, 32. Dr. Lanier claimed that performance rating was potentially “tainted” by discrimination, and therefore should not be considered. *Id.* ¶ 42-44.

8. In his initial analysis, Dr. Lanier did not control for or consider leave. *See id.* ¶ 25. He did not “measure in any way” the leave-taking habits of non-class members. Ex. C at 141; *see also id.* at 149-50 (“I did not control for the leave-taking of non-class members”; “I didn’t study leave”; never considered “the fact that [non-class members] are taking leave . . . might explain my results”); *id.* at 151 (“my results are not about leave”). Dr. Lanier “didn’t think that time on leave was a necessary control because . . . the definition of class doesn’t have to do with . . . how much pregnancy leave you took I mean, if you took it, then you’re a class member.” Ex. C at 154. Thus, Dr. Lanier did not attempt to analyze for, or even examine, the leave data that was made available to him before he conducted his analyses. *Id.* at 141, 149-54. Despite claiming that leave was irrelevant to his analysis, he admitted that “if leave affected the productivity of an individual, if leave . . . somehow figured into the pay decisions, then . . . the

taking of leave . . . whether it be maternity or non-maternity leave, might make sense as a control variable.” Ex. C at 152. He also acknowledged that “[e]conomic theory suggests there could be legitimate business reasons behind [a relationship between leave taking and pay outcome], such as productivity changes associated with time out on leave.” Dreiband Decl. Ex. E ¶ 21 at 8, n.6 (Lanier Reply Rep.); *see also* Ex. C at 152-53 (noting awareness of studies demonstrating “a negative correlation between time on leave and . . . pay outcome”).

9. Dr. Lanier made a number of calculation and data errors in his initial analysis. He incorrectly converted foreign currencies to U.S. dollars; incorrectly identified certain individuals as class members even though their maternity leaves ended before the class period; used the incorrect base pay control in over 4,000 instances; and improperly deleted significant data related to EEC grants. Dreiband Decl. Ex. F at 4-5 (Ward Rebuttal Rep.). Correcting these errors reduces the base pay growth disparity between class members and non-class members to 1.04%, and slightly increases the EEC grant disparity to \$1575. *Id.*, Tables R1, R2. Both findings are statistically significant. *Id.*

10. Bloomberg expert Dr. Michael Ward corrected Dr. Lanier’s errors and ran Dr. Lanier’s models comparing class members to all Bloomberg employees, but controlling for leave. These analyses showed that there are no statistically significant disparities in either base pay or EEC grants when they control for leave. Ex. F at 9, Tables R1, R2.

11. In response to Dr. Ward’s criticism, Dr. Lanier performed final analyses that purported to control for leave. To do so, he created a model that, used properly, could account for differences in total compensation growth caused by maternity leave versus non-maternity leave. Ex. E ¶ 6. The model actually accounts for whether the leave was taken by a class member or by a non-class member (Dreiband Decl. Ex. G at 2 (Ward Sur-Sur Reply)), and treats

all leave taken by class members as maternity leave. *See* Ex. C at 349-52. But during the class period, class members took both maternity and non-maternity leave. Dreiband Decl. Ex. H at 14 (Ward Rep.).

12. Dr. Lanier's final model reports changes in total compensation growth as a function of leave duration and class status, and shows changes in total compensation growth between class members and non-class members for varying leave durations. Ex. G. at 2; Dreiband Decl. Ex. I at Table 0 (Corr) (Lanier Corr. Reply Rep.).

13. Dr. Lanier interpreted his final analysis to show that class members received 1.17% lower total compensation growth than non-class members who took the same amount of leave the previous year. Ex. I at 4. This finding is statistically significant. *Id.* Although he described this statistic as an "average" difference between class members and non-class members (Ex. I, Table 0 (Corr)., note [d]), Dr. Lanier reported the difference in total compensation that his model generated only when leave duration was zero—i.e., he reported only the difference in total compensation growth between class and non-class members who took no leave in the year between the previous two pay determinations (Ex. G at 5, 9), or between "[t]he theoretical class member *who took no leave* and . . . the theoretical non-class member *who took no leave*." Ex. C at 387 (emphasis added). Dr. Lanier's final analysis continues to compare class members to all other Bloomberg employees. *Id.* at 346-47. At zero leave duration, all Bloomberg employees who had never taken leave are included in the comparator group, even though they are not similarly situated. Ex. G at 9. When Dr. Ward removed these employees as comparators from Dr. Lanier's final model, it showed that class members had slightly higher total compensation growth than non-class members, even at the zero leave duration point for which Dr. Lanier reported his results, although this finding was not statistically significant. *Id.* at 10.

14. Dr. Lanier did not report the results of his model for the average class member—that is, for a class member who took an average amount of leave. Ex. G at 2. The average leave duration in the year between compensation changes is 58 calendar days. *Id.* at 7-8. For that leave duration, Dr. Lanier’s model shows that employees who took maternity leave experienced *greater* pay growth than those who took non-maternity leave of the same duration, although this finding was not statistically significant. *Id.*; Ex. C at 405-09.

15. Dr. Lanier admitted that his revised model showed that “the overall predicted [pay] outcome for class member[s] is better than the overall predicted outcome for non-class member[s]” and “that overall class members [] in many cases a majority of leave conditions did better than non-class members or had better predicted [pay] outcomes.” Ex. C at 418-19, 422. Dr. Lanier further conceded that “[i]n actuality,” class members received higher compensation growth than other similarly situated non-class members, and that “the leave penalty for class members is less than the leave penalty for non-class members.” *Id.* at 405-06, 410-13.

ARGUMENT

Federal Rule of Evidence 702 governs admission of expert testimony, and provides

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Id. Under Rules 702 and 403, district courts must engage in a “rigorous” analysis of both the relevance and reliability of proposed expert testimony, *see Amorgianos v. Nat’l R.R. Passenger Corp.*, 303 F.3d 256, 267 (2d Cir. 2002), before admitting or considering expert testimony for any purpose. *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 590-91 (1993); *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 148-51 (1999). The party offering an expert’s testimony has

the burden to establish that it satisfies these requirements, *United States v. Williams*, 506 F.3d 151, 160 (2d Cir. 2007), and the Second Circuit consistently excludes expert testimony that does not do so. *See, e.g., Raskin v. Wyatt Co.*, 125 F.3d 55, 65-68 (2d Cir. 1997); *Boucher v. U.S. Suzuki Motor Corp.*, 73 F.3d 18, 21-23 (2d Cir. 1996) (per curiam).

A. Dr. Lanier's Proffered Testimony Should Be Excluded Because It Is Not Relevant To Any Issue In The Case

In *Daubert*, the Supreme Court recognized that “[e]xpert evidence can be both powerful and quite misleading” (509 U.S. at 595), and held that for it to be admissible, it must help the jury “to understand the evidence or to determine a fact in issue.” *Id.* at 591. This is a relevance standard: “[e]xpert testimony which does not relate to any issue in the case is not relevant and, ergo, non-helpful.” *Id.* (internal citation omitted). Because Dr. Lanier’s proffered testimony is irrelevant, the Court should exclude it.

1. Dr. Lanier's Analyses Are Irrelevant Because They Fail To Compare Similarly Situated Individuals Or Control For Leave

Dr. Lanier’s analyses of pay growth disparities are irrelevant for two reasons. First, they do not compare class members to similarly situated employees. Second, the analyses fail to control for a major variable—leave—that explains away the pay growth disparities that the analyses identified.

To be admissible in a disparate-treatment discrimination case such as this one, statistical regressions must draw comparisons between individuals who are similarly situated to the plaintiffs in legally relevant ways. *See, e.g., Anderson v. Westinghouse Savannah River Co.*, 406 F.3d 248, 261-63 (4th Cir. 2005); *Coward v. ADT Sec. Sys., Inc.*, 140 F.3d 271 (D.C. Cir. 1998); *People Who Care v. Rockford Bd. of Edu.*, 111 F.3d 528 (7th Cir. 1997); *Coleman v. Exxon Chem. Corp.*, 162 F. Supp. 2d 593, 620-21 (S.D. Tex. 2001). In *Anderson*, the Fourth Circuit

affirmed the decision to exclude expert testimony because the expert's analysis did not compare individuals with similar job positions, titles, performance, and rank. Because the expert's analysis "failed to compare similarly situated workers," it "was based on comparisons that were not relevant to [plaintiff]'s claims" and was properly excluded. 406 F.3d at 262-3.

Expert analysis that fails to control for major non-discriminatory factors that may explain any observed disparities may also be excluded as irrelevant. *See, e.g., Bazemore v. Friday*, 478 U.S. 385, 400 n.10 (1986) (per curiam) ("some regressions [are] so incomplete as to be inadmissible as irrelevant"); *Bickerstaff v. Vassar Coll.*, 196 F.3d 435, 448-49 (2d Cir. 1999) (excluding expert report because failure to consider two of three quantifiable factors rendered report "of no probative value"); *Raskin*, 125 F.3d at 67-68 (affirming exclusion of evidence because expert did not "attempt to account for other possible causes" of disparity, other than discrimination); *see also People Who Care*, 111 F.3d at 537 (statistical study that "fails to correct for salient explanatory variables" is irrelevant because it "has no value as causal explanation").

EEOC claims that class members experienced discrimination "once they announced their pregnancy and once they returned to work after taking maternity leave." Ex. A ¶ 7(a). Dr. Lanier admitted that he could not determine when class members announced their pregnancy, Ex. C at 46-47, and therefore defined class members as individuals who took maternity leave, and examined disparities in pay growth after class members took maternity leave. *Id.* at 160; Ex. B ¶ 8. To be similarly situated, therefore, non-class members must have taken leave during the class period; leave must also be considered a major variable in the analysis.

a. The Pregnancy Discrimination Act Requires That Class Members Be Compared To Other Leave Takers

The PDA provides that "women affected by pregnancy, childbirth, or related medical conditions *shall be treated the same* for all employment-related purposes . . . as other persons

not so affected but similar in their ability or inability to work.” 42 U.S.C. 2000e(k) (emphasis added). A court will not find pregnancy-based discrimination unless there is evidence that an employer treated women who took maternity leave differently than those who took other types of leave. *See Orr v. City of Albuquerque*, 531 F.3d 1210, 1216 (10th Cir. 2008) (“similarly situated” employees are those non-pregnant employees who also took FMLA leave); *Doe v. C.A.R.S. Protection Plus, Inc.*, 527 F.3d 358, 366-369 (3d Cir. 2008) (comparing a plaintiff who took leave following a surgical abortion to male employees missing work due to illness); *Piraino v. Int’l Orientation Res.*, 137 F.3d 987, 991 (7th Cir. 1998) (proper comparator to a plaintiff on maternity leave would be an employee requiring a six-week leave of absence). District courts within the Second Circuit routinely apply this standard (*see Velez v. Novartis Pharmaceuticals Corp.*, 244 F.R.D. 243, 264 (S.D.N.Y. 2007); *Minott v. Port Authority*, 116 F. Supp. 2d 513, 521 (S.D.N.Y. 2000)), and the Second Circuit has recognized it in the context of a non-PDA Title VII claim. *Fisher v. Vassar Coll.*, 70 F.3d 1420, 1448 (2d Cir. 1995).

This Court applied these principles to a class action pregnancy discrimination case brought under the PDA where plaintiffs claimed that their employer discriminated against women who took pregnancy leave in compensation, promotions, and personnel evaluations. *Velez*, 243 F.R.D. at 249. Dr. Lanier served as the plaintiffs’ expert. The court denied plaintiffs’ class certification motion on the PDA claim challenging the employer’s compensation policy because the policy gave “employees who return after taking leave for pregnancy the same partially incentive-based compensation as all other employees [who return from leave for other reasons.]” *Id.* at 264. The court stressed that to establish classwide discrimination under the PDA, plaintiffs must show that “the compensation system [] differentiates between employees who take leave for pregnancy and employees who take leave for other reasons.” *Id.*

EEOC agrees that discrimination under the PDA occurs only when a plaintiff can show that she was treated differently than individuals with a similar inability to work. For example, EEOC interprets the PDA to require that employment policies, seniority, benefits and privileges of employment, and disability insurance “be applied to disability due to pregnancy, childbirth or related medical conditions on the *same terms and conditions as they are applied to other disabilities.*” 29 C.F.R. § 1604.10(b) (emphasis added). “If other employees *who take disability leave* are entitled to get their jobs back when they are able to work again, so are women who have been unable to work because of pregnancy.” 29 C.F.R. § 1604.10 app., Introduction. Indeed, EEOC’s Compliance Manual explicitly requires that pregnant employees be “compared to other persons who are similarly situated with regard to disability. . . . If [the charging party] is unable to work (whether temporarily or permanently), *she should be compared to employees who are likewise disabled for reasons unrelated to pregnancy.*” EEOC Compliance Manual, § 626.15, Investigating and Processing Pregnancy Discrimination Charges (emphasis added).

All of Dr. Lanier’s analyses failed to compare class members to other employees who took similar amounts of leave; instead, he compared them to all Bloomberg employees, the vast majority of whom had never taken leave. Ex. C at 161-62; Ex. F at 2. His initial analysis did not even attempt to consider or control for leave in any respect. Ex. C at 141-42. Although he purported to account for leave in his final analysis, he still did not compare class members to other leave takers, and he reported the results of that analysis only at the point where this error has the greatest negative impact on the class—that is, at the point where employees took no leave. Ex. G at 2-3, 7. Dr. Lanier’s analysis should therefore be excluded as irrelevant.

b. Dr. Lanier’s Initial Analyses Are Irrelevant Because They Ignore Leave

Dr. Lanier’s initial statistical analyses compared the pay awarded to class members, all of

whom took leave during the class period, to the pay awarded to all other Bloomberg employees, the vast majority of whom took no leave during the class period. Ex. C at 161-62; Ex. F at 2. They showed modest but statistically significant differences in the rate of pay growth and the amount of an EEC grant that disfavored the class, from which Dr. Lanier concluded that class members received lower base pay rate changes and intended EEC grants than similarly situated non-class members. Ex. B ¶ 52. These conclusions are irrelevant.

First, because EEOC alleges intentional discrimination under the PDA, Dr. Lanier's analysis contains a simple but fatal flaw: it does not compare class members to other employees who took leave. To compare PDA class members to similarly situated individuals, Dr. Lanier's analysis had to make this comparison, but he admitted over and over again that his initial analysis did not do so. Dr. Lanier did not "measure in any way," much less control for, leave-taking by non-class members. Ex. C at 141, 149-50. He "didn't study leave" or consider the possibility that leave taken by non-class members "might explain [his] results." *Id.* at 150. And he compared class members to all other Bloomberg employees, the vast majority of whom had never taken a leave of any duration before. *Id.* at 161-62; Ex. F at 2. Indeed, according to Dr. Lanier, 82% of the data in the database he used related to "employees who took no leave." Ex. D ¶ 15. In short, his "results are not about leave." Ex. C at 151.

Second, these admissions demonstrate that Dr. Lanier did not control for leave in his initial analysis, either. But it is plainly a major variable, as controlling for it eliminates the statistical disparity that Dr. Lanier's analysis found. Dr. Ward's analysis conclusively establishes that controlling for leave eliminates any statistically significant differences in compensation growth between class members and non-class members. Ex. H at 18-19. And Dr. Lanier's own models show the same thing: there are no statistically significant disparities in pay

growth after controlling for leave. Ex. F at 5-6. Used properly, Dr. Lanier's own methodology establishes that Bloomberg's pay decisions did not discriminate against employees who returned from maternity leave when compared to individuals who took leave of similar duration—the only legally relevant comparison. *See id.*

In sum, both because Dr. Lanier's initial analysis did not compare class members to other employees who took leave, and because it did not in any way consider or control for leave, that analysis is not relevant to any question in the case, will not assist the trier of fact, and is inadmissible. *Anderson*, 406 F.3d at 261-63; *People Who Care*, 111 F.3d at 537.

c. Dr. Lanier's Reply Reports Fail To Make Relevant Comparisons Or Properly Control For Leave

After being criticized by Bloomberg's statistical expert for failing to consider or control for leave in his initial statistical analysis, Dr. Lanier created an entirely new analysis that purported to account for leave. *See generally* Ex. I. But that analysis, like his initial analysis, fails to compare class members to other Bloomberg employees who took leave. *See* Ex. C at 349-52; Ex. G at 2-3. And Dr. Lanier reports the results of this analysis at the single point where this error has the greatest adverse impact on the class, but concedes that with respect to total compensation growth "the leave penalty for class members is less than the leave penalty for non-class members." Ex. C at 413; Ex. G at 7. This analysis is therefore also irrelevant to proving EEOC's discrimination allegations.

Dr. Lanier's revised analysis uses an interaction model designed to compare the effect of taking maternity leave with the effect of taking non-maternity leave to determine whether those leaves impact pay growth differently. Ex. E ¶ 6; Ex. C at 349. The model he used "is designed to allow the effects of Class Membership and leave duration to interact—meaning that the effect of each of these two factors depends on the other." Ex. G at 2. In the model, the effect of leave

duration depends upon class membership, and the effect of class membership depends upon leave duration. *Id.* The model compares the total compensation growth of class members at various leave durations to non-class members at various leave durations. *See id.* at 5-6. Dr. Lanier included all Bloomberg employees in this model, including those who took no leave during the class period. *See* Ex. C at 346-47.

Applying the model, Dr. Lanier found approximately a one percent, but statistically significant, difference in pay growth between class members and non-class members where leave duration is zero. Ex. I ¶ 9. This differential exists only where leave duration is zero, or between “[t]he theoretical class member *who took no leave* and . . . the theoretical non-class member *who took no leave*.” Ex. C at 387 (emphasis added); Ex. G at 5. Dr. Lanier did not report the results of his model for other leave durations, but candidly admitted that as leave duration increases beyond zero, his revised analysis establishes that class members experienced greater pay growth than non-class members with the same leave duration. Ex. C at 405-07, 411-12; Ex. G at 7. This revised analysis is irrelevant to EEOC’s claims in this lawsuit for two reasons.

First, as Dr. Lanier acknowledges (Ex. C at 346-47), this analysis suffers from the same flaw as his initial analysis: it does not compare employees who took maternity leave to employees who took other types of leave to assess any difference in compensation between the two groups. Instead, it compares class members (who took both maternity leave and non-maternity leave during the class period) to all other Bloomberg employees, the bulk of whom did not take leave during the class period. Ex. C at 346-47; Ex. F at 2. This is a legally irrelevant comparison of employees that are not similarly situated. *See* Ex. G at 9. When Dr. Lanier’s revised model is used to compare class members to other employees who took leave during the class period, it shows that class members have slightly higher total compensation growth than

non-class members even at zero leave duration, although this finding is not statistically significant. *Id.* at 9-11.

Moreover, Dr. Lanier reported his results only at the point where this error affects them. *Id.* at 5. Because he reported his results only at zero leave duration, and because all non-leave takers took zero leave, he reported the results of his model only at the point where they are skewed due to use of the improper comparator group. *See id.* at 2-3. At virtually every other leave duration, class members “did better [in terms of total compensation] than non-class members or had better predicted [pay] outcomes.” Ex. C at 418-19, 422.

Second, Dr. Lanier’s revised analyses show that, “[i]n actuality,” class members receive greater total compensation than other similarly situated non-class members, and that “the leave penalty for class members is less than the leave penalty for non-class members.” Ex. C at 410, 413. And it is clear that the average class member, with a leave duration of 58 days in the year between compensation changes, experiences *greater* pay growth than the average non-class member at the same leave duration, although this finding is not statistically significant. Ex. G at 2-3, 7-8. Despite these admitted facts, it remains Dr. Lanier’s position that class members experience discrimination in total compensation growth because they are subject to a “fixed [class] penalty” without which their compensation growth might be greater still. Ex. C at 411-12. But that is precisely what the PDA does *not* require—it does not require an employer to treat individuals who take maternity leave more favorably than individuals who take other types of leave; it simply requires that the employer not treat individuals who take maternity leave *less favorably* than other leave takers. *See supra*, at 9-11. Dr. Lanier’s admission that “the leave penalty for class members is less than the leave penalty for non-class members” renders his analysis completely irrelevant to establishing intentional discrimination under the PDA. *Troupe*

v. May Dept. Stores Co., 20 F.3d 734, 738-39 (7th Cir. 1994) (noting that “[e]mployers can treat pregnant women as badly as they treat similarly affected but nonpregnant employees.”). It should therefore be excluded.

2. Dr. Lanier’s Analysis Cannot Support Any Of EEOC’s Claims

Dr. Lanier’s analysis is irrelevant to proving EEOC’s claims in its Second Amended Complaint that Bloomberg intentionally discriminated against class members by (1) “awarding them less total intended compensation than the actual value of their prior year’s compensation”; (2) “demoting them”; (3) “excluding them from management meetings and otherwise isolating them”; and (4) “subject[ing] [them] to stereotypes regarding female caregivers.” Ex. A ¶¶ 7(a)-(d). Dr. Lanier’s analysis is irrelevant to proving any of these types of discrimination. He does not purport to address categories (3) and (4). *See* Ex. B ¶ 52. He attempted to address category (2) (*id.* ¶ 5), but was not able to reach any conclusions about it. *See id.* ¶ 52. Finally, Dr. Lanier does not contend that his pay analyses establish that Bloomberg reduced any class member’s pay; rather, his analyses purport to show that class member pay *increased* at a slower rate than non-class members in some circumstances, and that EEC grants were lower for class members than for non-class members. *See id.* ¶ 52. Thus, according to Dr. Lanier’s analysis, the class did not experience the pay cuts that EEOC alleges. Because Dr. Lanier’s analyses are not relevant to proving any of EEOC’s claims in this case, they should be excluded.

3. Dr. Lanier’s Damages Calculations Are Based On His Irrelevant Statistical Findings And Should Be Excluded

Dr. Lanier also calculates back pay and other monetary damages by multiplying the pay growth disparity he found by the average class member base pay for the class period, and the modest decrease in EEC grants that he found by the number of EEC grants received by class members during the class period. *Id.* at ¶¶ 45, 48-50. He also computes interest and other

economic damages. *Id.* at ¶ 46. Because these figures rely on the legally irrelevant statistics that Dr. Lanier's analyses produced, his damage calculations are irrelevant and should be excluded.

B. Dr. Lanier's Analyses Should Be Excluded Because They Are Unreliable

Dr. Lanier's analyses should be excluded because those analyses, and the conclusions he draws based on them, are entirely unreliable. Dr. Lanier egregiously misinterprets the results of his final analysis, claiming that it shows a "fixed [class] penalty" with respect to pay growth (Ex. C at 411-12), when in fact it shows "that overall class members [] in . . . a majority of leave conditions did better than non-class members or had better predicted [pay] outcomes." Ex. C at 418-19, 422. Moreover, his analysis contains errors that make it unreliable.

1. The Conclusions That Dr. Lanier Draws From His Interaction Analysis Are Statistically Unsound And Therefore Unreliable

Rule 702 requires the court to ensure that the conclusions drawn from the expert's methodology result from proper application of that methodology. Fed. R. Evid. 702 (requiring showing that the witness has applied the principles and methods reliably to the facts of the case). "[A]ny step that renders the analysis unreliable . . . renders the expert's testimony inadmissible. This is true whether the step completely changes a reliable methodology or merely misapplies that methodology." *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 745 (3d Cir. 1994); *Lippe v. Bairnco Corp.*, 288 B.R. 678, 701 (S.D.N.Y. 2003) (expert testimony excluded where experts "d[id] not apply reliable principles and methods in a fair and reliable way"). The conclusions that Dr. Lanier draws from application of his interaction model fail this test, and are unreliable.

Dr. Lanier performed his final analysis "to account for the relationship between leave taking and pay outcomes." Ex. I ¶ 34. To do so, he used an interaction model to measure the effect that two different variables (class membership and leave duration) have on total compensation growth. Ex. G at 4-5. In this study, the effect on pay growth depends on both

class membership and leave duration, and the effect at a specific leave duration—e.g., zero days of leave—is different than the effect at other leave durations. *Id.* at 4-5, 7; *see also id.*, App. B. For this reason, the impact of class membership when leave duration is zero does not represent the “average” pay impact on the class; it represents the impact only when leave duration is zero. *Id.* at 5, 7. Under Dr. Lanier’s model, the impact of only one of the variables examined (here, class membership) on the pay growth “in general” “is in fact a meaningless [statistic].” *Id.*, App. B (quoting Braumoeller, Hypothesis Testing and Multiplicative Interaction Terms, *International Organization* 58, Fall 2004, at 808-09).

Dr. Lanier reported the impact of class membership on pay growth at zero days of leave duration, and ignored completely the results of the model for all other leave durations. *Id.* at 7. This is the point at which the results are most skewed against the class due to Dr. Lanier’s failure to compare class members to other employees who took leave. *See id.* at 2-3. Worse, Dr. Lanier presumes that the effect at zero days leave duration establishes that “on average,” the class received lower compensation increases than non-class members “who took the same amount of leave in the preceding year.” Ex. I, Table 0 (Corr.), note [d]. Dr. Lanier’s interpretation is contrary to established statistical principles and common sense.

The scientific literature establishes that, when using a model like Dr. Lanier’s, the effect of only one of the two variables examined (i.e., the effect shown when the leave variable is zero) does not represent the “average” or “general” result, but rather a “meaningless” statistic showing only the impact of one variable when, by definition, his model’s construction requires that two variables—leave and class membership—be measured for an accurate analysis. Ex. G at 2-3, App. B. The effect of one cannot be isolated from the other.

For this reason, Dr. Lanier’s model requires both examined variables (here, class

membership and leave duration) to depend upon each other. Nonetheless, Dr. Lanier attempted to resurrect EEOC's statistical case by claiming that by measuring the difference in total pay growth between class members and non-class members at zero days leave duration, he has identified a "fixed [class] penalty" that is unaffected by leave. *See* Ex. C at 412. But even he admitted that his final model establishes that "the overall predicted [pay] outcome for class member[s] is better than the overall predicted outcome for non-class member[s]." Ex. C at 418-19, 422. Thus, "[i]n actuality," class members receive higher compensation growth than other employees who took leaves, and "the leave penalty for class members is less than the leave penalty for non-class members." *Id.* at 410, 413. Taken to its logical conclusion, Dr. Lanier's interpretation of his model leads to the absurd result that to avoid a finding of discrimination, Bloomberg must pay class members *more* than non-class members at similar leave durations. Ex. G at 8-9. No law requires any employer to satisfy this standard.

Dr. Lanier's "meaningless" conclusion cannot be presented to the factfinder. It is unreliable, would confuse the jury, and must be excluded under Rules 702 and 403. *EEOC v. Morgan Stanley & Co.*, 324 F. Supp. 2d 451, 462 (S.D.N.Y. 2004) (excluding expert testimony that "would tend to confuse the [trier of fact] about the burden of proof"); Fed. R. Evid. 403 (relevant evidence "may be excluded if its probative value is substantially outweighed by the danger of . . . misleading the jury . . .").

2. Dr. Lanier's Analyses Are Unreliable Because They Were Carelessly Performed

An expert's analysis should be excluded where it is "cumulatively" unreliable due to the expert's data miscalculations, failure to verify data, and failure to apply appropriate methods in the relevant field. *Munoz v. Orr*, 200 F.3d 291, 301-02 (5th Cir. 2000). Mistakes in an expert's analysis should be viewed not in isolation but in combination; as the Supreme Court has noted,

each error that casts doubt upon the expert's reliability "augment[s]" other such concerns, and it is the cumulative evidence of unreliability that must be considered in deciding admissibility. *Kumho Tire Co.*, 526 U.S. at 155-56. Taken together, the errors in Dr. Lanier's analyses cast doubt upon their reliability, and therefore they should be excluded.

Dr. Lanier's initial analyses made a number of data interpretation and calculation errors that affected his conclusions. He incorrectly converted foreign currencies to U.S. dollars, in some cases making errors of 10,000% or more; incorrectly identified individuals whose maternity leaves ended before the class period as class members; used the incorrect base pay control in over 4,000 instances; and improperly eliminated approximately 12,000 employee records in his analysis of EEC grants. Ex. F at 4-5. He also improperly included employees working in foreign offices in his analysis, even though those individuals are not protected by Title VII, and the leave data with respect to them was incomplete. Ex. C at 140; Ex. I ¶ 2. While Dr. Lanier attempted to correct for some of these many errors after they were pointed out to him (*see* Ex. E ¶13), he failed to correct all of them. *See* Ex. G at 3 (noting failure to eliminate employees in foreign offices).

Dr. Lanier has not conducted any analysis that is relevant to proving EEOC's claims in this case, because his analyses fail to consider or control for leave. He so misinterpreted the results of his final analysis that the conclusions he draws from it are completely unreliable. And he was careless both with his computations and with his treatment of the available data. For these reasons, his "quite misleading" opinion should be excluded.

CONCLUSION

For the foregoing reasons, Defendant Bloomberg LP respectfully requests that the analyses, expert reports, and testimony of Dr. Louis Lanier be excluded from evidence in this matter in their entirety.

Dated: May 14, 2010

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CERTIFICATE OF SERVICE

The undersigned certifies that, on May 14, 2010, I caused a copy of Defendant's Memorandum of Law in Support of Defendant's Motion to Exclude the Reports and Testimony of Dr. Louis Lanier to be served by e-mail upon the following counsel of record:

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